

What is Claimed is:

1        1. A small hydroelectric power generator comprising:  
2            a main case with a fluid path,  
3            a hydraulic turbine which is arranged in said fluid pathway and turns as a  
4            predetermined flow of a fluid passes by, and

5            a rotator connected to said hydraulic turbine to rotate together with said hydraulic  
6            turbine, said rotator acting as a rotor portion opposed to a stator portion, so that power is  
7            generated by rotating said rotor portion relative to said stator portion as said fluid passes  
8            by;

9            wherein a plurality of ejecting openings are provided in said fluid pathway outside  
10          the rotational path of said hydraulic turbine for reducing an area of a flow of said fluid  
11          and for ejecting said fluid;

12          said hydraulic turbine has a rotational center portion and blade members which  
13          are hit by said fluid ejected from said ejecting openings, said blade members being  
14          formed such that an inner peripheral end portion is joined to said rotational center portion  
15          and outer peripheral point portions are extended toward the vicinity of said ejecting  
16          openings; and

17          each of said outer peripheral point portions of said blade members is formed in an  
18          edge-shape.

1        2. The small hydroelectric power generator as set forth in Claim 1 wherein  
2          the width of said edge-shaped portion of said blade member in the circumferential  
3          direction is 30% or less of that of said ejecting opening in the rotational direction of said  
4          hydraulic turbine.

1        3. The small hydroelectric power generator as set forth in Claim 1 wherein  
2          the plane of said blade member, the side opposite from the plane which is hit by said

3 fluid, is curved from the inner peripheral end portion to the outer peripheral point portion  
4 with the center portion projected.

1           4. A hydroelectric power generator comprising:  
2           a case having a fluid path;  
3           a hydraulic turbine disposed in the fluid pathway and operable to turn as fluid  
4 passes;  
5           a plurality of ejection openings provided in the fluid pathway outside the  
6 rotational path of the hydraulic turbine and operable to eject the fluid;  
7           the hydraulic turbine including a rotational center portion and a plurality of blades  
8 that are struck by the fluid ejected from the ejection openings, each blade having an inner  
9 peripheral end portion joined to the rotational center portion and an outer peripheral  
0 portion extended toward the vicinity of the ejection openings, wherein the outer  
1 peripheral portion of each blade has an edge-shape.

1           5. The small hydroelectric power generator as set forth in Claim 4 wherein  
2 the width of the edge-shape of the outer peripheral portion in the circumferential  
3 direction is 30% or less than the width of the ejection opening in the rotational direction  
4 of the hydraulic turbine.

1           6. The small hydroelectric power generator as set forth in Claim 4 wherein  
2 the plane of the blade opposite from the plane that is struck by the fluid is curved from  
3 the inner peripheral end portion to the outer peripheral portion with a center portion of  
4 the blade projected.